

REMARKS

Favorable reconsideration in view of the previous amendments and following remarks is respectfully requested.

Claims 1-6, 8-21 and 23-30 are pending. By this Amendment, claims 7 and 22 are canceled and claims 1, 8, 9, 16, 17 and 23 are amended. Currently, claims 1 and 16 are independent.

The Examiner rejects claims 1, 2, 7, 8, 10, 12, 13, 16-18 and 22-27 under 35 U.S.C. §102(b) over U.S. Patent No. 5,330,342 to Linss et al.; rejects claims 3 and 29 under 35 U.S.C. §103(a) over Linss '342 in view of U.S. Patent No. 4,806,092 to Linss et al.; and rejects claims 4-6, 9, 11, 14, 15, 19-21, 28 and 30 under 35 U.S.C. §103(a) over Linss '342.

Applicants' independent claim 1 is directed to a processor producing hollow bodies. A segment of a plastic tube is placed in a cavity of a blow molding tool arrangement by an extruder head in a definable cycle. The plastic tube is inflated via a blowing mandrel by overpressure according to a blow molding cavity. The hollow body is removed from a mold of the blow molding tool arrangement. The plastic tube is continuously held during the entire extrusion and blowing cycle on opposing sides of the blow molding tool arrangement. The plastic tube is continuously extruded such that after transfer of the extruded plastic tube to the blow molding cavity and during a blow molding process, a relative distance between the extruder head and the blow molding tool arrangement is increased.

Such features encompass Applicants' exemplary embodiment as illustrated in Fig. 4 wherein during the blowing process the extruder head 4 is continuously raised

and the vertical distance to the blow molding tool 6 is continuously increased. This combination of features is not disclosed in the Linss '342 patent.

Instead, the Linss '342 patent discloses an apparatus for manufacturing a tube like preform having a longitudinal wall with a variable cross-section for blow molding of a hollow body from a thermoplastic material. The apparatus includes a tubular die 30 having a variable exit opening 3, and a collar die 6 having a recess 9. The collar die 6 is movable into engagement with and away from the tubular die 30. The preform is produced by injecting thermoplastic material from the exit opening 3 of the tubular die into the recess of the collar die 6 while moving the tubular die 30. Simultaneously the speed of movement of the collar die 6 and a cross-section of the exit opening of the tubular die 30 are controlled in a manner that larger and smaller cross sections of the exit 3 correspond to a speed rate of the collar die 6, so that a thickness of the wall of the producible preform 18 changes from peaks 37 to valleys in a wavelike manner to form the variable cross-section the wall of the producible preform. Finally, blow-half molds 11 having an inner profile 13 are closed around the preform 18 which is then blown into its final state by a blow mandrel 10 integral with the collar die 6.

In the Linss '342 patent, the extrusion and blow molding steps are distinct and only occur consecutively because during operation the movable collar die 6 reciprocates between its lower position where it sits on the tubular die 30 and an upper position where the collar die 6 can be engaged by the half molds 11. Only after the half molds 11 have been closed can the preform be blown into its final state. See the Linss '342 patent at col. 4, line 61 through col. 5, line 25. As stated therein, upon movement of the collar die 6 upward on injection of the plastic material to the

exit opening 3 the preform 18 is formed. The shoulders 25 of the two blow half molds 11 are displaced toward the bevel 23 upon closing of the blow mold. Upon closing of the blow mold, the preform is blown to its final shape. Thus, the Linss '342 patent does not disclose the plastic tube is continuously extruded such that after transfer of the extruded plastic tube to the blow molding cavity and during a blow molded process, a relative distance between the extruder head and the blow molding tool arrangement is increased as in Applicants' amended independent claim 1.

Independent claim 16 is distinguishable over the Linss '342 patent for reasons similar to those discussed above with respect to independent claim 1. Claim 16, recites, in combination with other claimed features, actuating means with which a relative axle distance between an extruder head and an end face of a blow molding tool arrangement can be adjusted. This feature is not disclosed in the Linss '342 patent. As described above, the shoulders 25 of the blow half molds 11 are displaced towards the bevel upon closing of the blow mold. Upon closing of the blow mold, the preform is blown to its final shape. At this stage, where the blow half mold 11 and the blow mandrel 10 are axially aligned, there is no change in the relative axial distance between the blow half mold 11 and the blow mandrel 10. Thus, Applicants' independent claim 16 is distinguishable over the Linss '342 patent.

The dependent claims are allowable for at least the reasons discussed above as well as for the individual features they recite.

The Linss '092 patent does not overcome the deficiencies of the Linss '342 patent noted above.

Early and favorable action with respect to this application is respectfully requested.

Should the Examiner have any questions regarding this Amendment or the application in general, he is invited to contact the undersigned at the number provided below.

Respectfully submitted,

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